

WE CLAIM:

1. An interactive environment that is partially real and partially simulated comprising:
 - a structure that is large enough to accommodate an individual both before and after the individual takes a plurality of displacement steps within the structure;
 - at least one real, three-dimensional object positioned within the structure, the real object and the structure cooperating to form a seamless and integrated scene;
 - at least one computer-controlled display fixedly positioned within the scene such that each image displayed by the display appears to the individual to be real, three-dimensional and an integral and seamless part of the scene;
 - at least one sensor configured to sense interaction between the individual and the scene; and
 - a processing system in communication with the sensor and the display and configured to deliver a sequence of images to the display, the content of which are a function of the interaction between the individual and the scene, including a plurality of displacement steps taken by the individual.
2. The interactive environment of Claim 1 wherein the display is configured and positioned so as to appear to the individual to be an integrated and seamless part of the scene that is something other than a display.
3. The interactive environment of Claim 2 wherein the display is part of the structure.
4. The interactive environment of Claim 3 wherein the display includes a wall of the structure.
5. The interactive environment of Claim 4 wherein one of the images includes an image of wall texture and wherein the processing system is configured to deliver the image of the wall texture to the display.

6. The interactive environment of Claim 4 wherein a real, operable door is positioned in front of the wall of the display.

7. The interactive environment of Claim 4 wherein a real window is positioned in front of the wall of the display.

8. The interactive environment of Claim 7 wherein the window can be physically opened or closed.

9. The interactive environment of Claim 8 wherein the window includes operable shutters.

10. The interactive environment of Claim 1 wherein:

the interactive environment is configured to simulate a real environment having a similar structure, a similar real object and a scene beyond the structure;

one of the images includes an image of the scene beyond the structure;

the interactive environment includes a real or virtual door or window;

at least a portion of the display is oriented within the opening of the door or window; and

the processing system is configured to deliver the image of the scene beyond the similar structure to the display.

11. The interactive environment of Claim 1 wherein one or more of the images are selected by the processing system from a library of images stored on an image storage device.

12. The interactive environment of Claim 1 wherein the interactive environment is configured to simulate a real environment and wherein one or more of the images are captured from the real environment.

13. The interactive environment of Claim 12 wherein the images that are captured from the real environment are delivered by the processing system to the display in real time.

14. The interactive environment of Claim 1 wherein the structure, display and real object are configured in the form of modules that releasably connect to and disconnect from one another to facilitate the assembly, disassembly, shipment and re-assembly of the interactive environment in various different configurations from the modules.

15. The interactive environment of Claim 15 wherein a portion of the structure, the display or the real object includes wheels for easy transport.

16. The interactive environment of Claim 1 wherein the structure is large enough to accommodate a plurality of individuals both before and after each individual takes a plurality of displacement steps.

17. The interactive environment of Claim 1 wherein the structure, display and real object cooperate to create the environment of a room.

18. The interactive environment of Claim 1 wherein the structure, display and real object cooperate to create the environment of a building having a plurality of rooms.

19. The interactive environment of Claim 1 wherein the structure, display and real object cooperate to create the environment of an alleyway.

20. The interactive environment of Claim 1 wherein the structure, display and real object cooperate to create the environment of a land, sea or air vessel.

21. The interactive environment of Claim 1 further including computer-controlled sensory generator, other than a display, configured to controllably generate matter or energy that is detectable by one or more of the human senses, and wherein the processing system is also in communication with the generator and is configured to control the generation of such matter or energy.

22. The interactive environment of Claim 21 wherein the processing system is configured to control the generator as a function of the interaction between the individual and the scene.

23. The interactive environment of Claim 21 wherein the generator includes sound-generating apparatus.

24. The interactive environment of Claim 21 wherein the generator includes movement-generating apparatus.

25. The interactive environment of Claim 24 wherein the movement generating apparatus includes floor movement generating apparatus.

26. The interactive environment of Claim 24 wherein the movement generating apparatus includes air movement generating apparatus.

27. The interactive environment of Claim 21 wherein the generator includes a light.

28. The interactive environment of Claim 21 wherein the generator includes temperature-changing apparatus.

29. The interactive environment of Claim 1 wherein one or more images are stereoscopic images and wherein the display is configured to display the stereoscopic images.

30. A distributed interactive environment that is partially real and partially simulated comprising:

a first computer-controlled display fixedly positioned within a first scene such that each image on the first display appears to a first individual in the first scene to be real, three-dimensional and an integral and seamless part of the first scene;

a first sensor configured to sense interaction between the first individual and the scene;

a second computer-controlled display fixedly positioned within a second scene such that each image on the second display appears to a second individual in the second scene to be real, three-dimensional and an integral and seamless part of the second scene, the second scene being substantially the same as the first scene, but separated geographically from the first scene;

a second sensor configured to sense interaction between the second individual and the second scene; and

a processing system in communication with the first and second displays and the first and second sensors and configured to deliver a sequence of images to the first display the content of which are a function of the interaction between the second individual and the second scene and to deliver a sequence of images to the second display the content of which are a function of the interaction between the first individual and the first scene.

31. A distributed interactive environment that is partially real and partially simulated comprising:

a first computer-controlled display fixedly positioned within a first scene such that each image on the first display appears to a first individual in the first scene to be real, three-dimensional and an integral and seamless part of the first scene;

a second computer-controlled display fixedly positioned within a second scene such that each image on the second display appears to a second individual in the second scene to be real, three-dimensional and an integral and seamless part of the second scene, the second scene being substantially the same as the first scene, but separated geographically from the first scene; and

a processing system in communication with the first and second displays and configured to deliver a sequence of images to the first and second displays that are synchronized to one another and that are a function of a external stimulus.

32. A modular, interactive environment comprising:

a set of modular walls that releasably connect to and disconnect from one another to facilitate the assembly, disassembly, shipment and re-assembly of the interactive environment in various different configurations, at least one of the walls being a computer-controlled display configured such that images on the display appear to an individual within the environment created by the walls to be real, three-dimensional and an integral and seamless part of the environment;

at least one sensor configured to sense interaction between an individual and the environment created by the modular walls; and

a processing system in communication with the sensor and the display and configured to deliver images to the display that vary based on the interaction between the individual and the environment.

33. A simulated environment comprising:

a wall that forms part of a computer-controlled display configured in the environment such that images projected on the wall appear to an individual within the environment to be real, three-dimensional and an integral and seamless part of the environment; and

a sensor configured to sense the location of the wall within the environment.